Migration indicator in VDP

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M-bit in current VDP

VDP request: Status field contains four individual Boolean flags, encoded in bits 5–8, as follows.

Name	Bit position	Interpretation
M-bit	Bit 5	Indicates that the user of the VSI (e.g., the virtual station) is migrating (M-bit = 1) or provides no guidance on the migration of the user of the VSI (M-bit = 0). The M-bit is used as an indicator relative to the VSI to which the user is migrating.
S-bit	Bit 6	Indicates that the VSI user (e.g., the virtual station) is suspended (S-bit = 1) or provides no guidance as to whether the user of the VSI is suspended (S-bit = 0). A keep-alive Associate request with S-bit = 1 can be sent when the VSI user is suspended. The S-bit is used as an indicator relative to the VSI that the user is migrating from.
Req/Ack	Bit 7	Set to 0 to indicate that the TLV contains a request.
Reserved	Bit 8	Reserved for future standardization.

NOTE—The M-bit is restored to 0 when migration has stopped, either because the migration has succeeded, or it has failed. The S-bit is restored to 0 when the VSI user is no longer suspended.

Migration indicator requirement from NVO3

- **Req:** The protocol SHOULD support the End Device indicating if an associate or activate request from it results from a VM hot migration event.

- **Current ambiguity:** indistinguishable when M is 0 between no guidance and events not caused by migration. NVE may act differently (out of Qcn scope, informational only), e.g. :
  - migration: NVE may pull certain status or configuration from controller
  - Non-migration: NVE does nothing special (missing from current VDP)
  - No guidance: NVE may let controller to decide if any status should be pushed. VSIID May be used. (VSIID remains constant during virtual station migration)

Proposal

- Use bit 8 in Status field to indicate the VSI is *not* a migrating VM.

Name	Bit position	Interpretation
M-bit	Bit 5	Indicates that the user of the VSI (e.g., the virtual station) is migrating (M-bit = 1) or provides no guidance on the migration of the user of the VSI (M-bit = 0). The M-bit is used as an indicator relative to the VSI to which the user is migrating.
S-bit	Bit 6	Indicates that the VSI user (e.g., the virtual station) is suspended (S-bit = 1) or provides no guidance as to whether the user of the VSI is suspended (S-bit = 0). A keep-alive Associate request with S-bit = 1 can be sent when the VSI user is suspended. The S-bit is used as an indicator relative to the VSI that the user is migrating from.
Req/Ack	Bit 7	Set to 0 to indicate that the TLV contains a request.
N-bit	Bit 8	Indicates that the user of the VSI is NOT migrating (N-bit = 1) or provides no guidance on the migration of the user of the VSI (N-bit = 0).

NOTE—The M-bit is restored to 0 when migration has stopped, either because the migration has succeeded, or it has failed. The S-bit is restored to 0 when the VSI user is no longer suspended.

Note – M-bit and N-bit must not be set to 1 at the same time. If both are 1, it is considered as no guidance on the migration state. If M-bit or N-bit is set to 1 but not both, it indicates that migration indicator is provided and no-guidance indicator (value 0 of one of M-bit or N-bit) should be ignored.